

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**FOIL when  $A \neq 1$  solution (version 16)**

**FOIL the expressions shown below:**

1.  $(6x + 8)(4x - 9)$

$$\begin{aligned} & (6)(4)x^2 + (6)(-9)x + (8)(4)x + (8)(-9) \\ & (24)x^2 + (-54)x + (32)x + (-72) \\ & 24x^2 - 22x - 72 \end{aligned}$$

2.  $(7x - 6)(7x + 4)$

$$\begin{aligned} & (7)(7)x^2 + (7)(4)x + (-6)(7)x + (-6)(4) \\ & (49)x^2 + (28)x + (-42)x + (-24) \\ & 49x^2 - 14x - 24 \end{aligned}$$

3.  $(8x + 3)(-7x + 5)$

$$\begin{aligned} & (8)(-7)x^2 + (8)(5)x + (3)(-7)x + (3)(5) \\ & (-56)x^2 + (40)x + (-21)x + (15) \\ & -56x^2 + 19x + 15 \end{aligned}$$

4.  $(6x - 5)(-2x - 7)$

$$\begin{aligned} & (6)(-2)x^2 + (6)(-7)x + (-5)(-2)x + (-5)(-7) \\ & (-12)x^2 + (-42)x + (10)x + (35) \\ & -12x^2 - 32x + 35 \end{aligned}$$

5.  $(-2x - 2)(2x + 4)$

$$\begin{aligned} & (-2)(2)x^2 + (-2)(4)x + (-2)(2)x + (-2)(4) \\ & (-4)x^2 + (-8)x + (-4)x + (-8) \\ & -4x^2 - 12x - 8 \end{aligned}$$

**FOIL the expressions shown below:**

6.  $(2x - 4)(-2x + 9)$

$$\begin{aligned} & (2)(-2)x^2 + (2)(9)x + (-4)(-2)x + (-4)(9) \\ & \quad (-4)x^2 + (18)x + (8)x + (-36) \\ & \quad -4x^2 + 26x - 36 \end{aligned}$$

7.  $(4x - 2)(6x + 4)$

$$\begin{aligned} & (4)(6)x^2 + (4)(4)x + (-2)(6)x + (-2)(4) \\ & \quad (24)x^2 + (16)x + (-12)x + (-8) \\ & \quad 24x^2 + 4x - 8 \end{aligned}$$

8.  $(-9x + 6)(2x - 8)$

$$\begin{aligned} & (-9)(2)x^2 + (-9)(-8)x + (6)(2)x + (6)(-8) \\ & \quad (-18)x^2 + (72)x + (12)x + (-48) \\ & \quad -18x^2 + 84x - 48 \end{aligned}$$

9.  $(-5x - 5)(7x + 8)$

$$\begin{aligned} & (-5)(7)x^2 + (-5)(8)x + (-5)(7)x + (-5)(8) \\ & \quad (-35)x^2 + (-40)x + (-35)x + (-40) \\ & \quad -35x^2 - 75x - 40 \end{aligned}$$

10.  $(2x + 7)(-7x - 6)$

$$\begin{aligned} & (2)(-7)x^2 + (2)(-6)x + (7)(-7)x + (7)(-6) \\ & \quad (-14)x^2 + (-12)x + (-49)x + (-42) \\ & \quad -14x^2 - 61x - 42 \end{aligned}$$